



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1850
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,648	06/25/2003	Dennis Morgan	M1103.70154US00	4051

45840 7590 06/05/2007
WOLF GREENFIELD (Microsoft Corporation)
C/O WOLF, GREENFIELD & SACKS, P.C.
600 ATLANTIC AVENUE
BOSTON, MA 02210-2206

EXAMINER

BLUDAU, BRANDON S

ART UNIT	PAPER NUMBER
----------	--------------

2132

MAIL DATE	DELIVERY MODE
-----------	---------------

06/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/603,648

Applicant(s)

MORGAN ET AL.

Examiner

Brandon S. Bludau

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 and 37-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 and 37-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in reply to amendment filed 29 March 2007. Claims 1,6,18,19,21-25 and first 33 have been amended. The second claim 33 and 34-36 have been cancelled. Claims 37-39 are newly added. Thus, Claims 1-33 and 37-39 remain pending.
2. The Examiner acknowledges the amendments to claims 6 and 21 and further withdraws the previous objections.
3. The Examiner acknowledges the amendment to claim 19 and further withdraws the previous 112 rejection.

Response to Arguments

4. Applicant's arguments pertaining to the 101 rejection of claims 18 and 33 have been fully considered but they are not persuasive. Generically, "computer-readable medium" makes statutory, functional descriptive material. However, the specification discusses that "computer-readable medium" pertains to a modulated data signal such as a carrier wave. Such mediums are considered intangible and according to Office guidelines are treated as non-statutory. The Examiner maintains his previous rejection.
5. Applicant's arguments with respect to claims 1,19,21 and 37 do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections. Moreover, new rejections are cited below.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: determining whether the request shall be supported and a step including the result of the request not being supported. As the claim currently reads, it appears that every request to establish connection is provided with an indication indicating that the request is supported.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 18 and 33 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. See arguments above.

Claim Rejections - 35 USC § 103

8. Claim 1-6, 9-33 and 37-39 are rejected under 35 U.S.C. 102(e) as being unpatentable over Malcolm (US Patent 7146638) in view of Chakravarty (US PgPub 2004/0128545).
9. As per claim 1, Malcolm discloses a computer-implemented method, comprising:

receiving a call from an application via a first application programming interface, the call having parameters for a connection to an endpoint that the application desires to establish (column 6 lines 41-51 and column 2 lines 54-62 which discusses a well-known feature of communicating via an API);

receiving from the application via the first application programming interface a request to establish the connection (column 4 lines 6-11 see also Chakravarty [0028]);

providing the application with an indication indicating that the request is supported (column 6 lines 12-20 wherein it is necessary that the application receives indication that it is supported); and

making a call via a second application programming interface to a firewall to establish the connection in accordance with the parameters (column 7 lines 21-41).

Malcolm doesn't specifically disclose a second application programming interface, the embodiment of Malcolm includes wherein the application requests directly to the firewall to establish a connection via the first interface used to establish the parameters. Chakravarty disclose a similar method, wherein an application requests via a firewall client module for a firewall to establish a connection in accordance with parameters previously dictated by the application (see [0029] –[0032]). It would have been obvious for one of ordinary skill in the art to modify Malcolm to include the firewall module for processing the requests on behalf of an application via a second API. Motivation for modifying Malcolm as discussed above would have been to simplify processes at the firewall by not requiring it to parse commands from every application which may be in a different format as discussed by Chakravarty in [0039].

Art Unit: 2132

10. As per claim 2, Malcolm discloses the method of claim 1, further comprising, at the firewall, evaluating the parameters with respect to a policy and, if the parameters meet the policy, establishing the network connection in accordance with the parameters (column 7 lines 21-41 wherein the policy is the rule established at the firewall see also Chakravarty [0027]).

11. As per claim 3, Malcolm discloses the method of claim 1, wherein the parameters comprise a known endpoint to which the application would like to be connected (column 7 line 29).

12. As per claim 4, Malcolm discloses the method of claim 3, but fails to specifically discuss wherein the parameters further comprise a request to limit the connection to a single connection.

Chakravarty discloses a similar method to Malcolm wherein applications submit to a firewall specific parameters for enabling a connection through the firewall, wherein the parameters are directed specifically to protocol commands specific to the requesting application [0024] and [0027]. Chakravarty doesn't specifically disclose wherein the request limits the connection to a single connection, however, one of ordinary skill in the art would be well-aware that this is a specific requirement of HTTP protocol and thus may necessarily be included in Chakravarty.

Chakravarty is analogous art because it is directed to a method of configuring a firewall to assist applications for establishing network communications.

It would have been obvious for one of ordinary skill in the art to modify Malcolm to include wherein a request parameter for the firewall would include a request to limit the connection to a single connection.

Motivation for one to modify Malcolm would be to include a method wherein an application that requires specific requirements may be able to dynamically configure the firewall to enable a communication through the firewall for many different protocols as discussed throughout Chakravarty specifically ([0022] and [0031] lines 13 and 14).

13. As per claim 5, Chakravarty discloses the method of claim 4, further comprising, after the connection has been established, closing the connection in accordance with the request.

The Examiner asserts that one of ordinary skill would be advised as to the requirements for HTTP and would necessary close the connection according to the request.

14. As per claim 6, Malcolm discloses the method of claim 1, but does not disclose wherein the parameters comprise a request for bandwidth or connection throttling for the connection.

The Examiner points to the rejection of claim 4 wherein Chakravarty discloses communicating parameters directed to specific applications. The Examiner notes that it would be obvious for a parameter of an application be directed to request for bandwidth or connection throttling. These are specific requirements or enhancements of well-known applications specifically peer-to-peer applications as would be well known to one of ordinary skill in the art. Motivation applies as stated in the rejection to claim 4.

15. As per claim 9, Malcolm discloses the method of claim 1, but does not include wherein the parameters comprise turning off or on specific protocol options.

Chakravarty necessarily includes wherein the parameters may include turning on or off specific protocol options, considering as it is directly related for specifying protocol parameters related to the requesting application. Obviousness and motivation may be applied as discussed in the rejection to claim 4.

16. As per claim 10, Malcolm discloses the method of claim 1, but does not disclose wherein the parameters comprise information about a property of a flow that requires special handling.

Chakravarty discloses wherein the parameters comprise information about a property of a flow that requires special handling [0035].

Motivation to modify Malcolm to specify wherein the property of a flow requires special handling such as authorization or authentication would be such as to authenticate specific users for applications as is already commonly implemented in the art of firewalls and would be well-known to one of ordinary skill in the art.

17. As per claim 11, Malcolm discloses the method of claim 10, but does not disclose wherein the information comprises a request for authentication or encryption.

Chakravarty does disclose wherein the information comprises a request for authentication or encryption (see rejection to claim 10).

18. As per claim 12, Malcolm discloses the method of claim 1, wherein the indication comprises opening a listening socket (column 7 lines 47-59).

19. As per claim 13, Malcolm discloses the method of claim 1, wherein the indication comprises connecting to a socket (column 7 lines 47-59).

20. As per claim 14, Malcolm discloses the method of claim 1, wherein the call to the firewall is made via a firewall application programming interface (see rejection to claim 1).

21. As per claim 15, Malcolm discloses the method of claim 1, wherein the firewall is located on a computer with the application (column 8 lines 62-64).

22. As per claim 16, Malcolm discloses the method of claim 1, but does not disclose wherein the firewall comprises an edge firewall, and further comprising an agent to communicate information to the edge firewall about the connection.

Chakravarty discloses wherein the firewall is an edge firewall and wherein the agent is the client firewall module (see fig. 4 #408 and 422).

23. As per claim 17, Malcolm discloses the method of claim 1, but does not specifically disclose wherein the firewall comprises an edge firewall, and further comprising an authenticated protocol to communicate information to the edge firewall about the connection. See Chakravarty fig 4 and [0040].

24. As per claim 18, Malcolm discloses a computer-readable medium having computer-executable instructions for performing the method recited in claim 1 (see claim 1 and column 5 lines 51-54).

25. Claim 19 is rejected because it discloses similar subject matter to claim 1 wherein the computer system elements are necessarily described in Malcolm and

Art Unit: 2132

Chakravarty and further wherein Chakravarty explicitly describes the enforcement module (fig. 4 #422).

26. Claim 20 is rejected because it discloses similar subject matter to claim 1, wherein in view of Chakravarty one may conclude the API discussed is a firewall API since it communicates with the firewall.

27. As per claim 21, Malcolm discloses a computer implemented method, comprising:

Receiving a connect attempt, a listen attempt, or a combination thereof from an application or a service;

Extracting user and application or service information from the connect attempt, the listen attempt, or the combination thereof;

Identifying a user and the application or the service from the user and application or service information;

Determining if the connect attempt, the listen attempt or the combination thereof need to match a policy;

If the connect attempt, the listen attempt or the combination thereof need to match the policy, establishing, via an application programming interface, the policy and adding the policy to a plurality of policies;

Evaluating the application or service information to determine if the connect attempt, the listen attempt, or the combination thereof comply with one or more policies from the plurality of policies; and

If the connect attempt, the listen attempt or the combination thereof comply with one or more policies from the plurality of policies, configuring a firewall to allow the connection attempt, the listen attempt, or the combination thereof (column 7 lines 21-41).

Malcolm doesn't explicitly discuss the steps of determining if the connect attempt needs to match a policy, however Malcolm doesn't require that the connection attempt match a policy, each application request may be granted or denied on a case by case basis (see column 6 lines 19-20), thus it is effectively determined by the user, if the connection attempt needs to match a policy. Also wherein enabling a connection request, necessarily requires configuring the firewall to allow the connection.

28. As per claim 22, Malcolm discloses the method of claim 21, further comprising if the connect attempt, the listen attempt, or the combination thereof do not comply with one or more policies from the plurality of policies, sending a notification to the user of the application or service (column 4 lines 53-56).

29. As per claim 23, Malcolm discloses the method of claim 22, wherein the notification comprises a selection to allow the connection (column 4 lines 53-59).

30. As per claim 24, Malcolm discloses the method of claim 21, wherein establishing the policies comprises receiving a policy from the application or service (column 4 lines 38-47).

31. As per claim 25, Malcolm discloses the method of claim 24, wherein receiving policies comprises receiving policies via an application programming interface (see rejection to claim 1).

32. As per claim 26, Malcolm discloses the method of claim 24, wherein the policy received from the application or service comprises inbound or outbound restrictions using one or more Internet Protocol addresses, information about scope of the connection, or combinations thereof (column 4 line 49 wherein the destination address is necessarily an IP address in view of the discussion).

33. Claim 27 is rejected because it discloses similar subject matter to claim 10.

34. Claims 28 and 29 are rejected because they disclose subject matter similar to claim 11.

35. Claim 30 is rejected because it discusses similar subject matter to claim 15.

36. Claims 31 and 32 are rejected because they disclose similar subject matter to that as discussed in claims 16 and 17 respectively.

37. Claim 33 is rejected because it discloses similar subject matter to claim 21.

38. Claim 37 is rejected because it discloses similar subject matter to claim 21.

39. As per claim 38, Malcolm discloses the computer system of claim 33, wherein the interception module comprises a policy cache for storing the policies (see fig. 3).

40. Claim 39 is rejected because it discloses similar subject matter to claim 16.

41. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malcolm (US Patent 7146638) and further in view of Chakravarty (US PgPub 2004/0128545) and the Applicant's disclosure as prior art.

42. As per claim 7, Malcolm discloses the method of claim 1, but does not disclose wherein the parameters comprise limiting the connection to a subset of interfaces, local addresses, or remote addresses, or combinations thereof.

The Examiner asserts a similar rejection to that as applied for claim 6, wherein Chakravarty discloses the parameters being specific to an application. The Examiner argues that it would be obvious for one of ordinary skill in the art to include wherein one of the parameters is specifically to limit the connection to a subset of address. Not only is this a common feature known for applications in the art, but also the Applicant admits this as a known feature in firewalls commonly used in the art ([004] lines 1-4). It would be obvious for one to include in a parameter sent directly from an application to include those that are already currently and commonly implemented in firewalls in the art.

43. As per claim 8, Malcolm discloses the method of claim 1, but does not include wherein the parameters comprise a timeout policy for the connection.

The examiner asserts that a timeout policy is a well-known rule or parameter found in firewalls implemented in the art and thus would be an obvious enhancement of the current method as disclosed by Malcolm in view of Chakravarty.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

Art Unit: 2132

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon S. Bludau whose telephone number is 571-272-3722. The examiner can normally be reached on Monday -Friday 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BB

Brandon S Bludau
Examiner
Art Unit 2132


GILBERTO BARRON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100